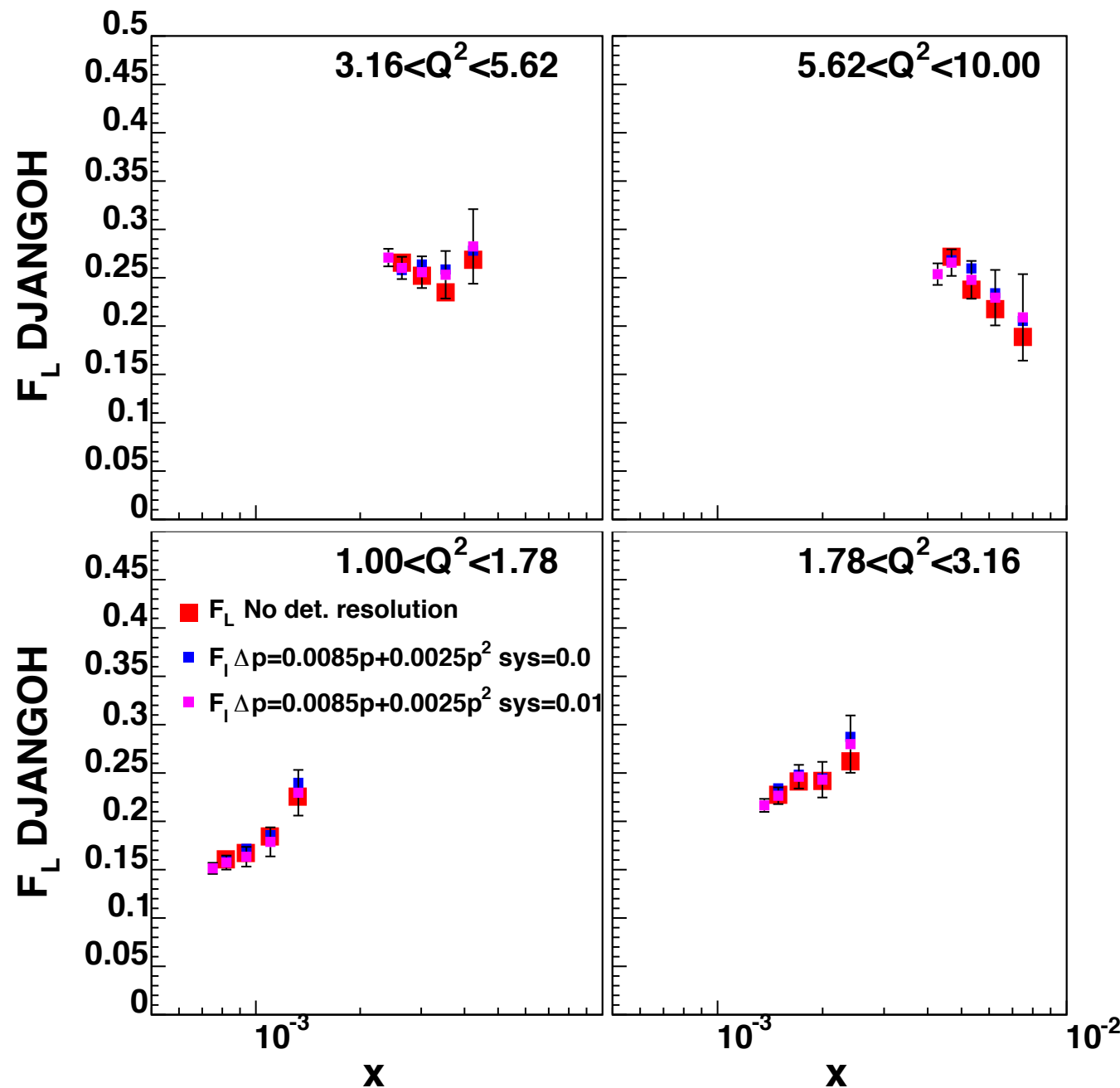


# FI work with Lepto and Djangoh

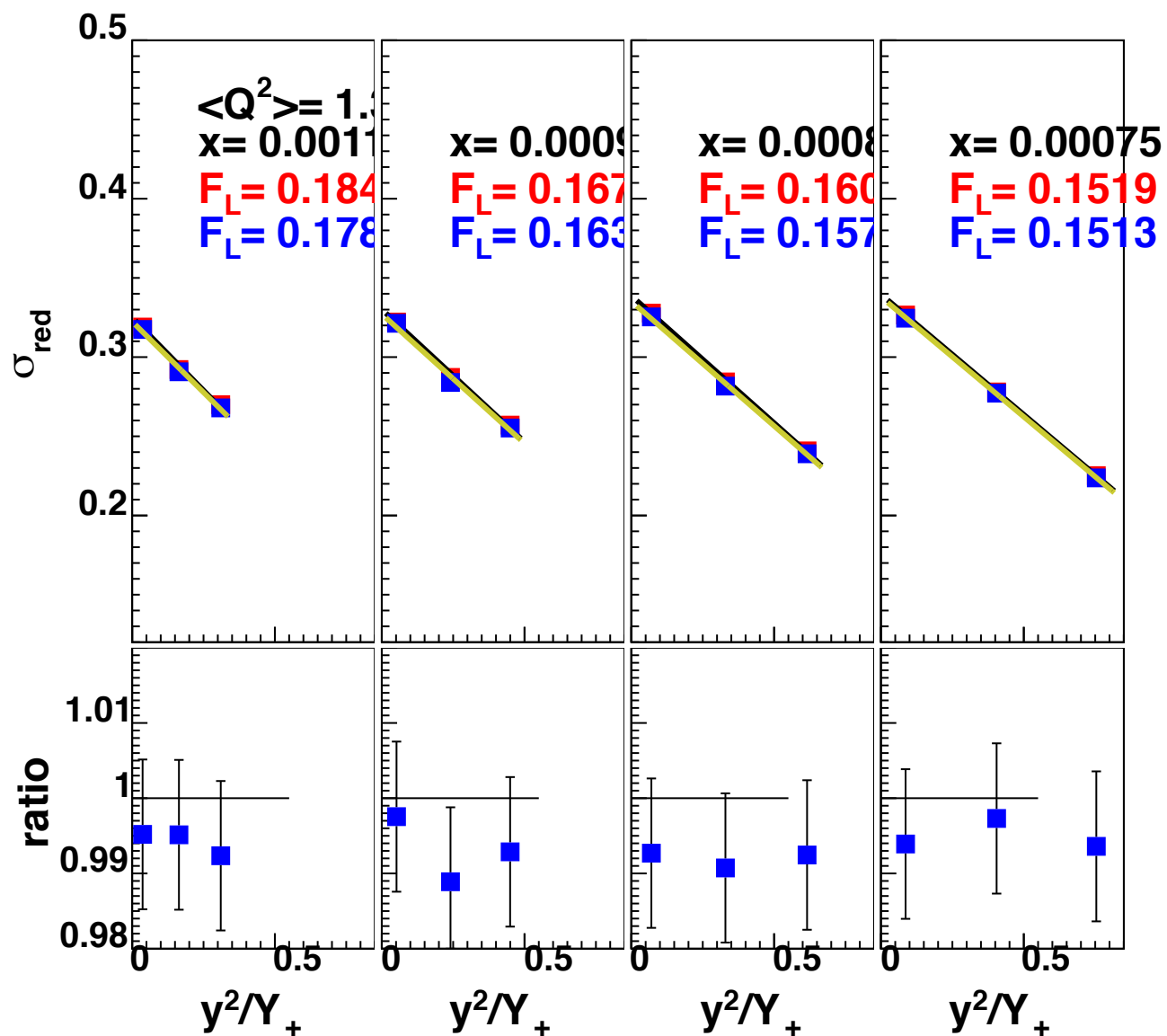
R. Debbe BNL



Using the correct normalization of histograms produces values that are closer to the H1 results. The algorithm is also more stable with respect to changes in detector resolution and the addition of a 1% syst. error.

Started working with events generated with **Djangoh** ep 100 130 and 250 GeV proton energies.

The analysis of that data lead me to find a problem in the way I extract averages: using a value of  $d\sigma/dx dQ^2$  placed in the PEPSI tree to do radiative corrections. By inertia I used that information and produced the previous small values of  $F_L$  with PEPSI.



**Red** points correspond to an ideal detector with no resolution smearing.

**Blue** points have the ZEUS resolution and 1% systematic error added in quadrature to statistical error corresponding to 1 month of running.

The point at the smallest value of  $x$  has the best lever arm. The order of the three points is 250, 130, 100



The new values for both Djangoh and Lepto are now higher than the most recent calculations.  
Continue checking for any bug in the algorithm.  
Work on higher electron energies.  
Start working on eA files.